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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 576,681	05/23/2000	Teiichirou Chiba	112780-004	3711

24573 7590 05/14/2002

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EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT	PAPER NUMBER
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1725

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DATE MAILED: 05/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/576,681

Applicant(s)

CHIBA ET AL.

Examiner

Lynne Edmondson

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-6 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 7-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The dot as formed can be used for anything including but not limited to product management and various securities. The use of the dot does not further limit the dot shape.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 7 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Gao et al. (USPN 5928750).

Gao teaches formation of a microdot (bump) formed by a laser wherein the dot has a protrusion at the center, a length of 1-3 microns and a height of 0.007-0.10 microns (col 3 lines 46-57 and Figure 5). The dot may be used for a variety of purposes including but not limited to product management (col 1 lines 21-32 and col 2 lines 36-44) or security. It is noted that a similarly shaped bump can be formed by other methods such as mechanical or chemical formation (col 1 lines 40-44). See also Gao claims 1-4.

3. Claims 1, 2, 7, 8 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Samsavar et al. (USPN 5866806).

Samsavar teaches formation of a microdot (bump) formed by a laser wherein the dot has a protrusion at the center, a length of 1-10 microns and a height of 0.01-0.10 microns. The outer periphery comprises recessed or beveled portion (lip or valley) (col 10 lines 8-39 and figure 8C). The dot may mark the surface of a wafer (col 2 lines 32-36) or other semiconductor device (col 9 lines 4-7) for a variety of purposes including but not limited to product management (col 1 lines 5-7) or security. It is noted that a similarly shaped bump can be formed by other methods.

4. Claims 1, 2 and 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Samsavar et al. (USPN 6267005 B1).

Samsavar teaches formation of a microdot (bump) formed by a laser wherein the dot has a protrusion at the center, a length of 1-10 microns and a height of 0.01-0.10 microns. The outer periphery comprises recessed or beveled portion (lip or valley) (col 23 lines 11-44 and figure 21C). The dot may mark an integrated circuit surface (col 2 lines 15-29) for a variety of purposes including but not limited to product management (col 1 lines 26-29 and col 2 lines 29-47) or security. It is noted that a similarly shaped bump can be formed by other methods.

Allowable Subject Matter

5. Claims 3-6 are allowed.

6. The following is an examiner's statement of reasons for allowance: The prior art teaches parts of the method such as mask and energy density (Ichiyama, USPN 4613842) or the crystal mask, homogenizer and lenses (James, 5463200). However, there is no disclosure of a combination of a homogenized beam through a liquid crystal mask at the particular split beam energy density to form the dot. By using these precise parameters dot size, shape and pitch can be controlled.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

7. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ota et al. (USPN 5477309), Tanaka et al. (USPN 6160603, mask and pixels), Baumgart et al. (USPN 5981903, 5 micron dot), O'Dell et al. (USPN 6068891, 1 micron bump), Chiba et al. (USPN 6144397), Matsumura et al. (USPN 6248973 B1), Takehisa et al. (JPN 06-226472 A) and Takehisa et al. (JPN 06-7971 A).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (703) 306-5699. The examiner can normally be reached on M-F from 7-4 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703) 308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7118 for regular communications and (703) 305-7115 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Lynne Edmondson
Examiner
Art Unit 1725

LRE
May 9, 2002

ALEXANDRA ELVE
PRIMARY EXAMINER